# RonaFloor HB100, HB200, HB Vertical Grade

## Medium and high build solvent free epoxy floor coating systems

### FEATURES

- high build coating for superior chemical resistance
- can incorporate fine aggregate to achieve slip resistance
- provides decoration; wide colour range
- easy to apply
- low maintenance
- Vertical Grade for application to coverings and walls
- can be used in conjunction with RonaFloor Epoxy DPM

### Description

RonaFloor HB 100 and HB 200 are solvent free epoxy floor coatings for use on concrete, screeded and granolithic floors. They provide excellent abrasion and chemical resistance to floors subject to constant traffic. Cured dry film thickness for a 2 coat application is approximately 0.2mm for HB100 and 0.4mm for HB200.

**Product Selection**
RonaFloor HB100 provides an economical wear resistant surface. RonaFloor HB200 should be used when greater wear is expected or a longer life is required. RonaFloor HB Vertical Grade is applied to vertical surfaces only.

### Physical Properties (standard grades)

| | |
|---|---|
| Pot Life | 30-45 minutes |
| Initial Cure Time | 6-8 hours |
| Intercoat Period | 6-24 hours |
| Foot traffic | 12-24 hours |
| Fork lift | 24-48 hours |
| Full chemical cure | 7 days |
| Compressive Strength (HB 100) ASTM D695 | 55N/mm² |
| Flexural Strength (HB 100) ASTM D790 | 28N/mm² |
| Compressive Strength (HB 200) ASTM D695 | 60N/mm² |
| Elastic Modulus (HB 200) ASTM D695 | 3.9kN/mm |
| Abrasion Resistance (HB100) | 0.04mm |
| Abrasion Resistance (HB200) | 0.01mm |

Abrasion resistance is classified as “Special Class” as defined in BS 8204.

### Physical Properties (rapid grades)

| | |
|---|---|
| Pot Life | 10-15 minutes |
| Initial Cure Time | 4-6 hours |
| Intercoat Period | 4-6 hours |

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### Physical Properties (continued)

| | |
|---|---|
| **Foot traffic** | **4-6 hours** |
| **Fork lift** | **12-24 hours** |
| **Full chemical cure** | **7 days** |
| **Compressive Strength (HB 100) ASTM D695** | **55N/mm²** |
| **Flexural Strength (HB 100) ASTM D790** | **28N/mm²** |
| **Compressive Strength (HB 200) ASTM D695** | **60N/mm²** |
| **Elastic Modulus (HB 200) ASTM D695** | **3.9kN/mm²** |
| **Abrasion Resistance (HB100)** | **0.04mm** |
| **Abrasion Resistance (HB200)** | **0.01mm** |

**Abrasion resistance is classified as "Special Class" as specified in BS 8204.**

### Slip Resistance

| **RonaFloor HB200 with a scatter of A/S Aggregate 0.1—0.3mm** | |
|---|---|
| SRV (dry) | 70 |
| SRV (wet) | 64 |
| Surface roughness | 63µ |
| Potential for Slip (dry) | Extremely Low |
| Potential for Slip (wet) | Low |

| **RonaFloor HB200 with a scatter of A/S Aggregate 0.4—0.8mm** | |
|---|---|
| SRV (dry) | 71 |
| SRV (wet) | 62 |
| Surface roughness | 95µ |
| Potential for Slip (dry) | Extremely Low |
| Potential for Slip (wet) | Low |

### Chemical Resistance

| | |
|---|---|
| **10% Acetic Acid** | **Resistant** |
| **10% Lactic Acid** | **Spillage only** |
| **10% Nitric Acid** | **Spillage only** |
| **10% Teepol** | **Resistant** |
| **16% Bleach** | **Resistant** |
| **25% Ammonia** | **Resistant** |
| **30% Chromic Acid** | **Resistant** |
| **30% Hydrochloric Acid** | **Resistant** |
| **50% Phosphoric Acid** | **Spillage only** |
| **50% Sodium Hydroxide** | **Resistant** |
| **50% Sugar Solution** | **Resistant** |
| **50% Sulphuric Acid** | **Resistant** |
| **Acetone** | **Not recommended** |
| **Animal Fats** | **Resistant** |
| **Citric Acid** | **Resistant** |
| **Engine Oil** | **Resistant** |
| **Industrial Methylated Spirits** | **Spillage only** |
| **Methanol** | **Spillage only** |
| **Petrol** | **Resistant** |
| **Skydrol** | **Resistant** |
| **Tap Water** | **Resistant** |

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| | | |
|---|---|---|
| **Chemical Resistance (continued)** | **Toluene** | **Spillage only** |
| | **White Spirit** | **Resistant** |
| | **Xylene** | **Spillage only** |
| **Coverage** | **RonaFloor HB100** | **25m² / pack / coat** |
| | **RonaFloor HB200** | **15m² / pack / coat** |
| | **RonaFloor HB Vertical Grade** | **18-20m² / pack / coat** |

### Rapid Grades

Where speed of cure and traffic is important the rapid curing versions of RonaFloor HB resins should be used.

RonaFloor HB100 Rapid, HB200 Rapid and HB Vertical Grade Rapid can be foot trafficked after only 4-6 hours (standard grade: 12-24 hours) and by fork truck traffic after 12-24 hours (24-48 hours).

The Rapid Grade has a shorter working time and pot life and material must therefore be mixed close to the area of application. The mixed resin must be immediately discharged onto the floor and spread before it begins to cure.

### Typical Applications

RonaFloor HB100 and HB200 coatings are used in areas requiring good wear and chemical resistance. They are suitable for use in chemical plant storage areas, warehousing, toilets, laboratories & food preparation areas. They adhere well to concrete, granolithic and polymer floors.

### Instructions for Use

**Substrate Preparation**
To achieve maximum adhesion it is essential that RonaFloor HB coatings are applied to a structurally sound, clean and dry substrate. Prepare the surface by removing all loose material and making good any structural defects (for fast cure repairs refer to RonaFloor Repair 1 Hour data sheet). Substrates must be clean, dry and free from grease, oil, dirt, laitance and loose or friable materials. New concrete or screeds should be allowed to dry out for at least 28 days prior to coating. RH at the surface must be below 75% when measured with a Hygrometer, or have a moisture content less than 5%. Laitance must be removed by light mechanical abrasion such as vacuum shot blasting. The surface should then be vacuum cleaned, to remove loose shot and other loose materials.

**Application Conditions**
The workability and ease of application of RonaFloor HB100 and 200 are adversely affected by low temperature; viscosity and curing time will increase. Therefore the material should ideally be stored, mixed and applied at 15°C to 20° C. At lower application temperatures the material should be stored at or warmed to 15°C to 20°C prior to use. Do not use when air and substrate temperature is below 10°C.

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### Instructions for Use (continued)

**Substrate Priming**
When applying to porous concrete it is advisable to seal the prepared surface with RonaFloor Epoxy Primer, coverage up to 5.5m² per kg depending on porosity.

**Mixing**
Add full contents of hardener container to full contents of resin container and mix with a slow speed drill and spiral mixing paddle until a homogeneous colour is achieved. Typical mixing time is 3-4 minutes. Transfer to a shallow paint tray immediately after mixing to dissipate heat to prolong pot life and extend working time. This is of even greater importance when using Rapid Grade

**Application**
Apply by short or medium nap mohair or lambswool (not foam) roller directly from a paint tray. Push the resin well in to the surface making sure the floor is fully wetted and then pull back lightly with the roller to the required thickness. Monitor applied thickness with a wet film thickness gauge.

**Cleaning**
Brushes and tools should be cleaned immediately with xylene based solvent.

**Slip Resistance**
Sprinkle A/S Aggregate onto the first coat whilst wet at the rate of approximately 1 to 2kg per m² and allow to cure. Brush or vacuum excess A/S Aggregate and apply second coat to achieve desired profile. Coverage rate for RonaFloor HB100 and 200 on to A/S Aggregate will be considerably reduced. The use of A/S Aggregate will reduce the ease with which the floor can be cleaned and the use of scrubber/ dryers should be considered.

### Colours

RonaFloor HB coatings are supplied in a range of colours, refer to colour chart available on request.

### Colour Variations

Packs should be used in strict batch rotation. Individual areas or rooms should be treated with material from a single batch to avoid the inevitable minor variations in shade resulting from batch manufacture, otherwise matched batches should be used to minimise these variations (an extract from FeRFA Guide To The Specification And Application Of Synthetic Resin Flooring).

### Osmotic Blistering

In a few cases severe blistering of thin synthetic resin floorings can occur between 3 months and two years after laying. These blisters commonly vary in size from a few mm in diameter up to 100 mm, with heights up to 15 mm. When drilled into or otherwise broken the blisters are found to contain an aqueous liquid under very high pressure. The mechanism of their formation is not fully understood but it is assumed because of their physical state that they are caused by a process of osmosis. Because the mechanism is not fully understood it is not

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**Osmotic Blistering (continued)**

possible to be specific about the steps which should be taken to avoid osmotic blistering. However it is considered good practice to take steps in order to minimise the risk (an extract from FeRFA Guidance Note No 2: Osmosis in Resin Flooring ISBN 0 9538020 5 1).

**Packaging**

RonaFloor HB100 and 200 and Vertical Grade are supplied in 5kg packs.

**Shelf Life and Storage**

RonaFloor HB100 and HB200 should be stored in unopened containers in dry warehouse conditions between 10°C and 25°C and protected from direct sunlight and frost. Shelf life is approximately 12 months in these conditions.

To achieve optimum performance and appearance in shade and sheen, store and apply material at a constant ambient temperature, humidity and with the same air movement throughout the project. Avoid storage and application at air, substrate and material temperatures below 10°C.

**Health and Safety**

First aid - Skin contact, wash immediately with soap and water. Eye contact - wash immediately with copious quantities of water for 10 minutes.

Seek immediate medical advice. Ingestion - wash mouth thoroughly with water. Drink water. Do not induce vomiting. Seek immediate medical advice. Spillage - extinguish any ignition sources. Wash small spills away with water, soak large spills with earth or sand; avoid contact; inform authorities of major spillage occurs. Notify Fire Brigade if spillage enters drains.

**Site Attendance**

When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.





Ronacrete

Ronac House, Flex Meadow, Harlow, Essex CM19 5TD, U.K.
Tel: +44 (0)1279 638700 www.ronacrete.co.uk technical@ronacrete.co.uk